

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number
WO 2004/032362 A1

- (51) International Patent Classification⁷: **H04B 3/36**
- (21) International Application Number:
PCT/US2003/028558
- (22) International Filing Date: 1 October 2003 (01.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/414,888 1 October 2002 (01.10.2002) US
- (71) Applicant (for all designated States except US): **WIDEFI, INC.** [US/US]; 476 Hwy A1A, Suite 3, Satellite Beach, FL 32937 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PROCTOR, James, A., Jr.** [US/US]; Widefi, Inc., 476 Hwy A1A, Suite 3, Satellite Beach, FL 32937 (US). **GAINEY, Kenneth, M.** [US/US]; WiDeFi, Inc., 476 Hwy A1A, Suite 3, Satellite Beach, FL 32937 (US).

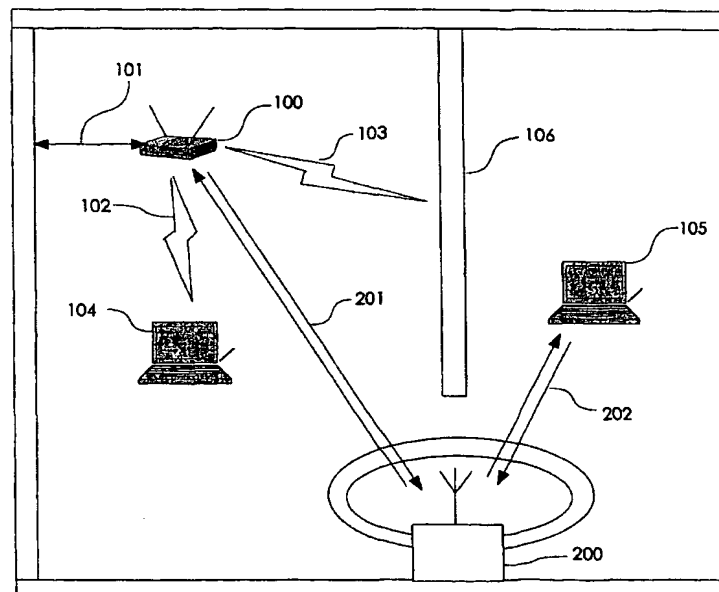
(74) Agent: **POSZ, David, G.**; Posz & Bethards, PLC, 11250 Roger Bacon Drive, Suite 10, Reston, VA 20190 (US).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **WIRELESS LOCAL AREA NETWORK WITH REPEATER FOR ENHANCING NETWORK COVERAGE**



(57) Abstract: In a wireless communications network such as a WLAN, a frequency translating repeater (200, 204) facilitates and enhances wireless communication between a first communication device (100) and one or more second client unit (104, 105) using frequency translation and retransmission based on modified protocol messages (410). A DS parameter message (310) may include a frequency channel intended for use between one or more of repeaters (200, 204) and client units (104, 105) but does not include the frequency channel between one or more of repeaters (200, 204) and the first communication device (100).